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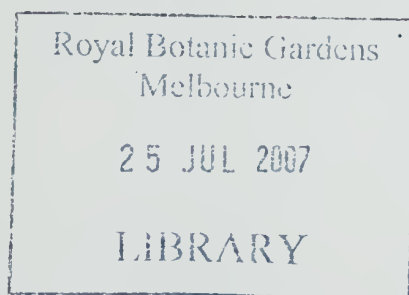
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BOTANICAL AND DOMAIN GARDENS.

ANNUAL REPORT

OF THE

CURATOR OF THE BOTANICAL AND DOMAIN GARDENS.



PRESENTED TO BOTH HOUSES OF PARLIAMENT BY HIS EXCELLENCY'S COMMAND.

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ANNUAL REPORT.

To the Honorable JAMES JOSEPH CASEY, M.P., Minister of Lands and Agriculture.

SIR,

I have the honor to submit my First Annual Progress Report on the Botanical and Domain Gardens, placed under my charge in July 1873.

BOTANICAL GARDEN.

I may premise that since taking office I have had many difficulties to encounter. I found the Botanical Garden overrun with weeds, plants of great intrinsic value were, in many instances, without distinguishing labels, in some places valuable specimens were languishing for want of nourishment, the grounds sadly required trenching and manuring, there was no proper system of drainage, and the staff of men available was so small as to render it very difficult for me to keep the place tidy. My first proceeding, with the limited sum (£600) at my disposal for contract works in the Garden, was to have it thoroughly drained. This has been effectually done, and judging from the progress since made by the majority of the trees, the miserable appearance previously presented by many of them, owing to the soddened and sour condition of the soil in parts (several walks also being in an equally swampy state), has become a thing of the past.

In accordance with my plans for remodelling this Garden, I commenced at an early date to cut down a number of unsightly indigenous trees throughout the grounds, care being of course taken in every instance to leave standing the best specimens of each genus. By doing this, room was made for a number of valuable exotics and other plants, which had previously been overshadowed or crowded out of sight. Amongst the more prominent of these superfluous indigenous trees thus dispensed with were specimens of hakea, eucalypti, acacia, melaleuca, &c., &c. In the course of improvements effected in this Garden and the Domain it became necessary to transplant some large trees, such as *pinus insignis*, *pinus canariensis*, *cedrus deodara*, *cupressus macrocarpa*, *quercus* (evergreen and deciduous) *ficus*, *coronocarpus*, *araucaria*, &c. I may here mention that I have invariably made it a rule, when compelled to remove such trees as the oaks, to graft them, in order to preserve the species in the event of accident, and this course was pursued in the present instance. There was a very strong impression amongst the gardeners under my direction that trees of a certain habit and age could not be transplanted with safety. I append a memorandum from one of the men employed in this work, showing that, with the exercise of due care, trees of considerable size can be removed even in supposed unfavorable seasons; a very important fact to be borne in mind where it is necessary to produce a certain landscape effect within a limited time. Large trees, some of which were upwards of 20 feet in height, were thus removed in December last. In no other colony has such an undertaking been carried out to this extent, and the attendant success proves the geniality of the climate for this sort of work. The following is the memorandum referred to:—

“In December 1873, according to Mr. Guilfoyle's instructions, we commenced lifting plants up to the 20th January 1874:—*Pinus canariensis*, varying in height from 10 to 15 feet; five *pinus insignis*, from 18 to 20 feet; five *draeænas*, the first ever lifted at this time of the year; eypresses, from 10 to 20 feet. They are all doing well.—H. HENDRICK.”

In the early part of the present year, numbers of common and unsightly trees were also felled in the Garden and replaced by others of ornamental appearance, care being in each case taken to provide for the future symmetry of the landscape by considering the natural heights and effects by contrast of the trees so planted.

Early attention was given to a thoroughly systematic labelling of the plants throughout the grounds—an operation much needed; but I would suggest that an order be given for fresh labels, which can be manufactured in the colony, the same to be painted green with black letters, containing the common and botanical names of the plants. The sum of £200 would cover this cost. The present white labels have the appearance of miniature tombstones.

Many plants previously kept in the greenhouses I considered of sufficiently robust habit for outdoor culture; I therefore directed their removal to the grounds, where they are thriving remarkably well. A number of these were in the palm-house on the hill. A specimen of the *caryota urens*, and also an *aralea* (the former fully 20 feet in height), had forced their heads through the glass roof of the house. These plants, with others, were removed to the grounds, where they are progressing satisfactorily. *Ficus indica* (the great banyan tree) is also growing much better in the open air than it did in the house. *Hibiscus sinensis* (a shrub from China), between 9 and 10 feet in height, from having been eodded under glass, had become somewhat more tender than it would otherwise have been; it is now thriving in the open air, and flowered freely during the past month. I could enumerate many other equally beautiful but still more tender plants which are now also doing well out of doors. In the palm-house the place of the tall palms, &c., thus removed from the centre, was filled by a spacious circular stage, which has afforded an opportunity for the continuous display of a profusion of delicate plants in full bloom, adding greatly to the elegant internal appearance of the house, which was repaired and thoroughly re-arranged during the past season. The smaller iron conservatory was renovated, painted, the roof covered with canvas, and other improvements made, after which upwards of 250 species of ferns were collected and placed in it, forming a fernery, the effect of which is imposing, while the individual growth has been most rapid and satisfactory. One of the gardeners, Mr. French, was transferred from the Domain and placed in charge of this fernery and the propagating department; and I have to speak in the highest terms of his assiduity and capability. He has successfully struck some hundreds of choice flowering shrubs and plants for the general decoration of the Botanical and Domain Gardens, and has shown an aptitude and attention which it is very gratifying to me to mention.

Towards the end of last year a piece of ground in the Botanical Garden was prepared, and some thousands of young palms, *draeænas*, *cycads*, &c., were raised from seeds for future planting out in the grounds. Although, owing to the reprehensible neglect of a gardener (who has since been removed) a number of these tender seedlings, as well as many choice specimens in the Garden, were allowed to perish during my severe illness, the remainder have thriven remarkably well since due attention has been paid to them, and will be of material assistance in furnishing the grounds. Seeds of all kinds have throughout been collected when ripe, and used both for local planting and exchange purposes. In the month of November the *Victoria Regia* flowered, and I had then occasion to point out the necessity for providing a larger tank and house for the accommodation of this plant. I selected a site for the future *Victoria* house on the hill near the large conservatory; but up to the present date the plant remains in its old quarters, though it would be very advisable to remove it as soon as possible, as the tank now holding it does not admit of more than two leaves attaining their full proportions.

In September, 249 camellias—fine, hardy plants, of the choicest selected varieties—were introduced from Sydney, there having previously been only one or two isolated and inferior specimens of this beautiful plant in the garden. These camellias will be planted in positions where they will be subjected to the watchfulness of the Botanical Garden employes. During the summer I have had continual occasion to complain of the wholesale flower-stealing carried on by visitors to the Garden; and I regret to say that in many instances the pilferers were well-dressed people, whose social position should have made them superior to such acts. Through the whole season favorable to the floral display which I endeavored to create in the Garden, my intended effects were frequently spoiled by these flower thieves, who, in addition to purloining the flowers, frequently inflicted considerable damage on the shrubs from whence the blooms were thus violently torn. Indeed, in some instances, whole plants were taken away bodily, not only from the open grounds of the Garden, but also from the houses. A vigorous watch (so far as lies within my power with the limited means at command) will in future be kept for these dishonest persons, and prosecution in each proved instance of theft strictly enforced.

In October, 4,417 plants were transmitted to the State Nursery at Mount Macedon.

Finding that the Garden was devoid of some hundreds of choice and valuable plants, such as ornamental and flowering shrubs, &c., suitable both for indoor and outdoor culture, I at once commenced introducing such plants. I have to acknowledge the kindness of many well-known Victorian nurserymen—Messrs. T. Lang and Co., Geo. Smith, Taylor and Sangster, J. Harris, W. Herbert, J. Scott, J. C. Cole, B. and S. Johnson, D. Watt, G. Brunning, and C. F. Cresswell—from whose extensive stocks I was not only able to purchase many valuable plants, but who generously gave many donations of choice shrubs, &c., for the ornamentation of the Garden. I was thus enabled to keep up in the flower beds, which were previously quite bare, a good succession of bloom. In the Appendix to this Report will be found a list of donations, with names of the donors.

The propagating department is in a very flourishing condition. Hundreds of useful trees and shrubs have been propagated for the general decoration of the grounds. Many useful and rare plants have been introduced from abroad, including a choice yellow *nymphia*, furnished by Mr. Abbott, Curator of the Hobart Town Botanical Garden. From Dr. Schomburgk, Curator of the Adelaide Botanical

Gardens, I have also received in exchange some valuable plants. The propagating department also shows a continual and steady increase of many beautiful flowering plants and shrubs for the future decoration of borders, added to by donations from various sources.

Last month (April) the usual weeding operations were continued, and the formation of a lawn near the Curator's house was commenced. A fine collection of standard roses has been purchased from Mr. T. Johnson, of Rose Nursery, Hawthorn; they have been carefully distributed throughout the Garden, with due regard to contrast of color.

In the Botanical Garden I have only eight men available as gardeners; and with this limited amount of labor at my disposal, I endeavored during the past season to produce a maximum of floral effect. Continuous seasonable work, such as pruning, mulching, weeding, distributing flowering plants throughout the grounds, sowing seeds, propagating the most useful trees and shrubs, and numerous other operations, have also been regularly attended to. I have communicated with the Directors of the various Botanical Gardens in Europe and elsewhere, and have also written to well-known nurserymen in different countries for plants suitable to the Victorian climate. A number of exchanges, effected in this manner, have introduced important plants of economic value into the Garden.

The lagoon was cleared of weeds in November, an operation which had to be repeated this month, owing to their rapid growth. At some future time it will be advisable to deepen this sheet of water, which, by altering the islands, can then be made one of the most pleasing features in the landscape, instead of having the appearance of a rush-covered marsh. When the lawn now in course of formation is completed, stretching from the vicinity of the Curator's house to the water's edge, this lagoon will become a very important point in the scenery; hence the advisability of deepening and otherwise improving it at an early date. The waterfowl on the lagoon appear to be doing well; the European swans have reared a cygnet since my last Report. Quantities of earth, stones, &c., have been carted and applied to the improvement of the lagoon banks. While dispensing with some of the too numerous and narrow walks in the Garden, I would strongly advocate the construction of a broad one, 18 feet wide, encircling the lagoon, thus corresponding with those in the adjacent Government House grounds. I also suggested that a single-arched, light rustic bridge be thrown over that portion of the lagoon now crossed by a common long iron lattice-work bridge. The design of this new bridge (a sketch of which I have forwarded to the Honorable the Minister for Works) should be of a character to harmonise with the scenery which I propose to create at this spot.

Quantities of stones, stumps, tree-roots, &c., have been accumulated for the purpose of forming rockeries, which, if created at two of the principal entrances to the Garden, will materially add to its attractive appearance. My opinions respecting the construction of rockeries generally will be found further on, when reporting on the rockery and fern gully in the Government House grounds.

With respect to grasses suitable for creating a good sward on the various lawns, I am strongly in favor of an extensive use of the buffalo grass (*Stenotaphrum glabrum*). This grass is admirably adapted for covering large spaces, reproducing itself from continuous fibres thrown out by the roots. During the past summer, when other grasses were scorched up by the extreme heat, the buffalo grass remained vividly green. It is so hardy and capable of resisting drought, that I recommend its cultivation generally, not only for ornamental purposes, but also as a reliable and nutritious fodder-producing grass. I propose using this grass and doubt (Indian-couch) grass—also good for withstanding drought—very largely in the Botanical and Domain Gardens. The species of grasses at present in the Garden are few in comparison with those which can be introduced; and I have been promised by Dr. Schomburgk, of Adelaide, a number of useful kinds. I intend to collect the various species of native grasses, and to plant them, properly named, in experimental beds, in order to afford a fair test of their respective qualities.

The system garden I propose to remove to a part of the grounds better adapted for it, and to create that which shall really be a "system," instructive to the botanical student. The existing arrangement is cramped, without order, and is calculated to confuse those in search of information. My suggestion is to erect a summer-house in the centre of the new system garden, in which tabulated lists of the beds containing the genera of each order shall be placed on the walls, or otherwise made readily accessible to visitors, thus furnishing a directory to each plant in the systematic arrangement. This summer-house, besides thus being made very useful, could be made a great ornament to the scenery by the selection of a suitable design. Near the centre of this new system ground, I also propose to create a rosery on a large scale; and it will be absolutely necessary, when this portion of the Garden is in progress, to have a good and permanent supply of water laid on to it. Having these alterations in contemplation, whenever means shall be forthcoming for their prosecution, I have been careful to propagate most of the plants from the old system garden, so that, when the new one is formed, duplicates will exist of any valuable plants that might be damaged in transit. Judging, however, from my previously

mentioned success in moving very much larger trees, there is not one in the present system ground that cannot with care be safely transplanted.

Next to the new system garden should come a collection of plants of economic value; and there is sufficient space in the portion of the grounds which I have chosen for the purpose to admit of this being carried out. I would suggest the abolition of the unsightly houses, small conservatories, tool-sheds, &c., scattered through the ground, and the concentration of the buildings really required in the manner proposed in my previous Report. Placing a good lodge at each entrance-gate, and building the conservatories together on the hill where the palm-house stands, would be the best plan of procedure. Many walks, crossing each other in a very awkward manner, also require obliteration; but these matters will involve considerable expense, and will have to be dealt with by degrees.

I propose to place the most valuable camellias, roses, &c., near the Curator's house, where they can be watched, and at the same time be accessible to the public. This is absolutely necessary to prevent their wholesale theft or destruction. From the same cause I am compelled, when the caretaker is engaged elsewhere, to keep the doors of the fernery locked, but the key is always to be obtained on application by visitors, a notice being posted on the door to that effect. It is not pleasant to be compelled to enforce such arbitrary rules; but experience has shown that, unless such a course is pursued, the gardens and houses will be stripped by unprincipled persons.

From that portion of the Garden where I have commenced remodelling the grounds, I removed a number of diseased deciduous fruit and other trees, which were a great blot on the landscape. I also have in view the opening up of diversified scenery by the formation of picturesque groups and clumps of trees on the lawns, the glimpses through which will altogether change the appearance of the Garden. A broad walk, eighteen feet wide, will encircle the new lawn running down to the lagoon; and being carried with a bold curve to the eastern entrance, will dispense with a number of narrow walks, of mean appearance, which are badly formed, wrongly curved, and have an incongruous aspect. The plantation of groups and single specimens along this new walk will produce a great effect in opening up the scenery of the lake.

Both in the Domain and Botanical Gardens the inadequate supply of water for the plants was severely felt during the past summer. Some permanent source of supply for both places should be speedily arranged. During the drought last summer, there being no Yan Yean supply to the Botanical Garden, the men were almost exclusively occupied in keeping the plants alive, not having time to attend to keeping the grounds in order, or perform other necessary works.

It would greatly improve the appearance of this Garden to build an improved and more spacious orchestra, for band performances, on a lawn near the lagoon, where the acoustic facilities are very favorable. I propose to plant in this spot suitable umbrageous trees, beneath which seats will be placed for the accommodation of the large number of visitors who on such occasions would throng to this lawn. As the attraction of the music leads people to linger in such places, this spot is one specially to be rendered beautiful; it will therefore receive my particular attention when remodelling the grounds.

In view of the extensive alterations necessary in the Garden, I may point out that the present available labor is insufficient for the purpose. If I could obtain, say for twelve months, the services of twelve additional laborers, to form walks, transplant trees, do the rough part of forming and making lawns, ornamenting the lagoon, and similar work, I could make very great progress, during the period mentioned, in remodelling the Garden.

In my previous Report I mentioned the inconvenience and loss of time to which I was subjected on taking office by the absence of any catalogue of the Garden's contents. I have since devoted considerable time and attention to the preparation of such a work, which will be ready in about a month's time. It will contain a list of all the trees, plants, &c., in the Garden; the orders to which they belong, their native countries, botanical and common names, heights, habits, and times of blooming, properties (if any), and other useful information. It will be profusely illustrated with nature-printed pictures of ferns and other interesting plants, and is specially prepared as a compendious and exhaustive guide to the contents of the Botanical Garden. I trust that this work, by affording such facilities, will be instrumental in some degree in promoting a taste for botanical study generally, and eventually lead to a vast improvement in many of the gardens of our private citizens.

Appended is an estimate of the amounts required for the Gardens under my charge for the ensuing financial year.

APPENDIX.

LIST OF DONATIONS OF PLANTS, SEEDS, ETC., TO THE BOTANICAL GARDEN, WITH THE NAMES OF DONORS.

- J. C. Cole, nurseries, Richmond. A large and varied donation of herbaceous, bedding, and other plants; also seeds.
 J. Scott, nurseries, Hawthorn. A good miscellaneous lot of ornamental flowering and foliage plants in quantity.
 T. Lang and Co., Melbourne, nursery and seed establishment. A collection of miscellaneous select plants; total, 33.
 Also a great variety of flowering herbaceous plants and bulbs in quantity.
 W. Herbert, nurseries, Ballarat. Some miscellaneous plants.
 Geo. Smith, nurseries, Ballarat. A number of very valuable plants, both specimen plants and herbaceous.
 J. Harris, nurseries, South Yarra. One hundred named ericas, 93 choice pot plants; total, 193.
 Taylor and Sangster, nurseries, Toorak. A very choice collection of specimen pot plants, and a number of other plants; total, 187. (Also a quantity of bedding out plants in clumps.)
 B. S. Johnson, nurseries, Richmond. A collection of select plants; total, 101.
 D. Sullivan, Moyston. Seeds of native plants, also some seedlings.
 G. H. Reynolds, Melbourne. Ten kinds seeds of culinary plants.
 Col. Crawford, Tasmania. A few seeds.
 Government Botanist, Melbourne. Fifty-seven species Java seeds, also seeds of miscellaneous plants, 65; total, 115.
 B. Gulliver, Hobart Town. Eighteen kinds of Tasmanian seeds.
 W. Lumsden, East Melbourne. Thirteen kinds seeds from Nicol Bay.
 C. F. Cresswell, Melbourne. Ten kinds bulbs.
 D. Watt, nurseries, Richmond. One collection heaths, one collection chrysanthemums, large quantities of herbaceous plants, cuttings, fern spores, &c.
 M. Gnilfoyle, exotic nursery, Double Bay, Sydney. Select miscellaneous plants; a very large, varied, and valuable collection of bulbs, twenty-two varieties in large lots (over 4,000 bulbs), also quantity seeds.
 G. Brunning, nurseries, St. Kilda. Forty kinds of geraniums (newest), 1,034 plants; also a very large and valuable collection of greenhouse and other plants; seedlings, and one collection heaths, very fine; one collection chrysanthemums, &c.
 Botanic Gardens, Adelaide. One wardian case containing 29 plants, including new crotons and dracaenas.
 Botanic Gardens, Hobart Town. One plant nuphar lutea; 12 plants nymphaea alba; total, 13.
 Botanic Gardens, Geelong. One ton rich potting earth.
 Public Gardens, Ballarat. A quantity of seedling herbaceous plants.
 Botanic Gardens, Calcutta. Seeds of Indian forest trees.
 Botanic Gardens, Hong Kong. China tree seeds.
 Acclimatisation Society, Brisbane, Queensland. 30 lbs. seeds of arancaria bidwilli; 5 lbs. araucaria glauca; also seeds of the Indian logwood tree.
 Government Botanist's department, Melbourne. Various seeds; total specimens, 118.
 Mrs. Lynch, "Bombala," Brighton. Some mulberry seeds.
 Dr. Refton, Hokitiki, New Zealand. Twenty-eight miscellaneous plants.
 D. Inglis, Melbourne. Three plants, cedrela toona.
 J. Fulton, Melbourne. Forty-four miscellaneous plants from New Zealand.
 G. Shann, Bank of Victoria, Melbourne. Twelve ferns (adiantum).
 C. Bright, Esq., South Yarra. Twelve ferns in pots, and some cuttings.
 H. Webster, Richmond. Forty herbaceous plants.
 C. French, South Yarra. Eighty-six herbaceous plants.
 J. S. Elkington, Melbourne. Fifty distinct varieties bulbs; 5 pot plants.
 J. Hodgkinson, Richmond River, New South Wales. A number of ferns and palms.
 W. R. Virgoe, Brighton. Six caladiums and a number of specimen pot plants.
 Professor Wyville Thomson, H.M.S. *Challenger*. Plants.
 D. Sullivan, Moyston. A number of seedlings and seeds of native plants.
 Hon. T. McKellar, Melbourne. A few herbaceous plants.
 T. Ritchie, s.s. *Pera*. One wardian case containing some miscellaneous South Sea Island plants.
 C. French, South Yarra. Some ferns, three specimens.
 Hon. H. Miller, Kew. Twelve caladiums and some cuttings.

THE DOMAIN AND GOVERNMENT HOUSE GROUNDS.

During the past year works of a very extensive character have been carried out in the Domain, including the progress towards completion of the South Yarra drive, planting and completing the foot-paths running parallel with the drive, laying out and forming the grounds of Government House, and similar operations. The orchard, after being drained in an efficient manner, on contract, by Messrs. Taylor and Sangster, was planted with a choice collection of fruit trees supplied by that firm, and is progressing fairly. The American garden, although formed and planted with rhododendrons, has fulfilled my doubts as to the spot selected being a proper one. As I anticipated, in my report of August last, heavy rains have removed the soil, and I think this spot should be applied to some other purpose, an American garden being formed in a place having a more suitable aspect. The rhododendrons are alive, but required careful watering and unremitting attention during the droughts of last summer. The margin of Government House lawn has been partially planted, large specimens of trees scattered about the grounds having been carefully transplanted and disposed with a view to future effective landscape. A portion of the hill fronting Government House, and included in the lawn, has been

removed, but there still remains a depth of six feet to be taken from its crest, which will involve considerable expense, but is necessary for the proper completion of the lawn, as the base of the building is at present hidden from the city. I believe this hill to be a mass of gravel, and am of opinion that, when the projected cutting is made, sufficient material can be obtained from it to serve for the whole of the Domain walks and drives. The gravel already removed from this spot is being used in making the South Yarra drive. A number of elms were transplanted from the old metalled drive, and arranged in groups on the lawn, leaving several of the principal specimens of *eucalyptus globulus* in their original positions. The drive round the lawn has been partially formed and gravelled; but, instead of adhering to the original plan of making this drive ten feet wide, I caused it to be widened to eighteen feet, thus avoiding the mean appearance which a narrow drive must inevitably have presented when encircling such an extended space.

One of my first acts was to clear out an old quarry, which had been made the receptacle of all sorts of rubbish. After proper preparation, large trees and other ferns were planted here; the steep banks overhanging the gully were also planted with trees, principally of a pendulous habit—*agonis*, *ulmus*, &c.—selected with the object of giving the best natural shade to the ferns during the summer time, and thus affording the protection necessary to enable them to grow and flourish properly. A number of large specimens of umbrageous and ornamental plants, such as *aralea*, *grevillea*, Chinese ash, and *dracaena*, were, during the past favorable season, planted in the midst of the ferns; and these, with the aid of the pendulous trees mentioned, will in a short space of time form a canopy of foliage overhead, and thus protect the ferns from the scorching rays of the summer sun. Pending the development of these shading trees, a number of stout wires were stretched across the gully, and a thatch of *melaleuca* leaves placed on them, giving temporary protection from the sun. At the present time the ferns are in a most satisfactory condition. Along the steep banks of this gully a rockery was commenced, a very large number of stones, limbs and roots of trees, &c., carted, good soil distributed, and the rough work of formation accomplished, rock plants put in, which are now flourishing. There is, however, much still to be done before this rockery can be considered completed. The aspect of a properly formed rockery should be one of natural wildness, and for this purpose rough fantastic-shaped masses of stone are requisite. These are not procurable here in any quantity; and to produce the necessary effect it will be essential to use cement freely in fastening irregular pieces of rock together, to introduce gnarled stumps and limbs of trees, and otherwise to give, in the completing touches, that natural air of picturesque confusion and irregular bold vegetation which form the attraction of a successfully designed rockery. On this principle I purpose also constructing the rockeries in the Botanical Garden, including one at either end of the intended rustic bridge across the lagoon. The rockeries in these Gardens will show how very favorable the mild climate of Victoria is for the growth of different varieties of rock plants—*aloes*, *cacti*, *agave*, *mesembrianthemum*, *crassula*, *yucca*, *euphorbea*, &c.—which appear to the greatest advantage when growing in such positions. When the finishing touches to which I have alluded are given, and the rockery, with its nests of varied vegetation, surrounds the cool green fronds of the ferns in the hollow, the spot will be very picturesque and attractive.

During last September, 2,500 trees, shrubs, and palms were planted out in the Government House grounds. In January a great deal of new ground was carefully ploughed along the margin of the South Yarra drive ready for planting, the intention being to put in large plants from other portions of the Domain where they were crowded together, and in some instances this has already been done. Finding that the private drive to Government House was wrongly curved near its head, thus permitting an uninterrupted view from the house almost along its entire length, I curved it between 25 and 30 feet more towards the Observatory, thus allowing the head of the drive to enter with a bold sweep the expanse of gravel which, in my opinion, should be created in front of Government House. This alteration gives greater depth for creating a mass of foliage near the walk which encircles the lawn.

In my Report dated August last I drew attention to a monotonous avenue of *araucaria imbricata*, *Wellingtonia gigantea*, and *cedrus deodara*, planted in three formal rows along the private drive. I then expressed an opinion that, from the fact of these trees being planted on mounds, they would be in great danger during the approaching summer; and I regret to say that my anticipations proved correct, for, in spite of the trees being carefully watered during the continuance of the hot weather, the mounds on which they were planted became baked by the scorching sun, and several of the trees perished. I may here point out that these trees—and especially the *araucaria imbricata* and *Wellingtonia gigantea*—are of a slow habit of growth, and, judging from specimens of these grown elsewhere, it will take at least twenty years, even in a favorable position, before they attain an altitude sufficient to form a good avenue. My idea would be to disperse them in a natural manner, grouped with some of the already well-grown trees, such as *cypress*, *pine*, *cedrus*, *araucaria*, *taxodium*, and others, which are too thickly planted upon the slope stretching towards the Yarra; and thus the avenue would be formed *at once*, giving an

immediate effect. This natural arrangement would afford varying glimpses of the more picturesque portions of the grounds instead of the present formal appearance of three stiff rows of trees, and would admit, in suitable places, of a foreground of light plants and flowering shrubs, as shown in a sketch attached to my Report of August last.

Last month (April) the time was principally occupied in the Domain in planting large trees and shrubs, preparing and planting the islands at Prince's Bridge, collecting manure, carting soil, and clearing the orchard of weeds. The islands at the Bridge are, in my opinion, too numerous and not of a sufficiently irregular and natural appearance; but such as they are they have been planted and the best possible appearance given to them. I have to acknowledge the kindness of the Colonel Commandant in giving the use of a pontoon raft for the carriage of trees, &c., to the islands for planting, without which it would have been impossible to carry over the water such huge specimen trees.

The projected reservoir for supplying the Botanical and Domain Gardens should be of such magnitude as to afford moisture in seasons of drought to the vast plantations of trees which, in course of time, will be formed through the grounds of both Gardens. It has been decided to place this reservoir upon the laboratory hill, which is the highest point in the Domain.

The terrace at the eastern end of Government House can be made one of the most pleasing features in the vicinity of that building. I quite agree with the suggestion of His Excellency the Governor that the croquet ground should be in this spot, instead, as in the original plan, of being fixed at such an inconvenient distance from the house as the extreme end of the lawn. The principal flower garden will also appropriately be created upon this terrace, and will be especially distinguished for its collection of the choicest and most beautiful varieties of flowers, harmoniously and tastefully arranged.

I suggest the buffalo grass, to the sterling qualities of which I have previously alluded, as being in all respects the most suitable for covering the splendid lawn to be formed in front of Government House, as, when once thoroughly spread, which would not be long, it would ever present that emerald green and beautiful appearance which in this climate, as proved by the experience of last summer, no other grass possesses. Small portions of it in the Botanical Garden were flourishing when even the Indian Doub grass had suffered from the heat, while other grasses were entirely burnt up.

I have the honor to be, Sir,

Your obedient servant,

WILLIAM R. GUILFOYLE,

Curator, Domain and Botanical Gardens.

23rd May 1874.

